

25. (Twice Amended) A system for forming an optical image comprising:
generating means for generating raster elements for [an raster] a two
dimensional fragment of an image;
a raster multiplying system for parallel multiplying of raster elements by
multiplying signals corresponding to the raster elements;
an image display plane on which an image is formed and displayed in the
form of the two [coordinate] dimensional fragments;
means for simultaneously transmitting said multiplied raster elements
corresponding signals to said image display plane; and
an array of controllable modulators for modulating raster element
corresponding signals in accordance with image-forming fragments.

26. (Not Amended) A system as in claim 25 wherein said raster
multiplying system comprises an array of coordinated light dividing elements to divide
and direct received light on said image display plane.

27. (Not Amended) A system as in claim 25 further comprising a
holograph generator for producing a holographic image on said display plane.

28. ~~(Thrice Amended)~~ A system for image recording comprising:
a raster generating means for generating raster elements for a two

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cont.*

dimensional fragment of an image;

a raster multiplying system for parallel sharing raster forming beams into a number of beams at least several of said beams, corresponding to the number of [scanning] simultaneously scanned fragments to form an image;

a recording medium on which an image to be recorded is projected and which is scanned; and

means for transmitting the raster forming beams to the recording medium.

29. (Not Amended) A system as in claim 28 further comprising means for optic compression of generated raster elements for increasing the dot per inch resolution of scanning light beams.

30. (Twice Amended) A method for forming an optical image via forming constituent fragments of an image on an image display plane, comprising:

generating a raster for a two dimensional fragment of an image;

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multiplying the raster by simultaneously subdividing raster element forming beams into components according to a number of simultaneously formed image fragments;

simultaneously modulating said raster elements corresponding signals to form a plurality of fragments of an image to be displayed; and

displaying said plurality of fragments on said image display plane.

31. (Amended) A method as in claim 30 wherein [generated optic raster elements comprise functional elements, such as] the step of generating a raster comprises successively generating images having periodic functions used for image compression/decompression via orthogonal transformation, and wherein the step of image forming is [performance] performed at the same time the step of decompressing the compressed data for the image.

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32. (Amended) A method as in claim 30 wherein the step of forming said plurality of fragments of an image to be displayed comprises forming fragments of a hologram, and further comprising generating said hologram as a holographic image on said image display plane.

33. (Not Amended) A method for image forming as in claim 30 used for producing hard copy of an electronically formed holographic image, further comprising:

generating the holographic image;
projecting the formed image on a photosensitive material;
forming a hologram on the photosensitive material; and
developing the photosensitive material.

34. (Thrice Amended) A method for recording the image via scanning

a sensitive plane on which an image that is to be recorded is projected, comprising:

generating a raster for a two dimensional fragment of an image;

multiplying the raster by simultaneously subdividing raster element[s]

forming beams into components according to the number of parts of said sensitive plane that are to be simultaneously scanned;

~~simultaneously~~ projecting said beam components on said sensitive plane;

and

converting the image information received on said sensitive plane by the projection of said beam component into a form suitable for recording.

35. (Twice Amended) A method as in claim 34 wherein [generated raster elements comprise functional elements, such as] the step of generating a raster comprises successively generating images having periodic functions used for image compression/decompression via orthogonal transformation, and wherein the procedure of image forming is performed at the same time as the procedure of compressing the data for the image.

36. (Amended) A method as in claim 34 wherein generated [optic] raster elements are subject to additional optical compression for increasing dot per inch resolution of sensitive plane scanning beam.

Cancel claim 37 without prejudice.

REMARKS

A complete set of claims is presented for convenience.

Claims 25-37 are of record. Claim 37 has been cancelled, leaving claims 25-36.

Claims 25 and 31 have been amended to correct the informalities pointed out by the Examiner.

Claims 31 and 35 stand rejected under §112 as containing subject matter not adequately described in the Specification, i.e., the term "generated optic raster elements comprise functional elements such as periodic functions used for image compression/decompression".

Reference is made to the Specification (page 23, line 16 to page 24, line 6). Please note that a method for compression/decompression of numerical arrays forming an image by OT functions is in common use (e.g., the JPEG procedure format used for images in personal computers). Detailed methods for displaying/recording an image via OT are referred to in U.S. Patent 5,801,683. It is submitted that the Specification contains information and the known art supports the questioned phrase for one skilled in the art. To better satisfy the Examiner's objection, claims 31 and 35 are amended to use terminology closer to that of the Specification.

As to the drawings, a new set of drawings (Figs. 1-7) was submitted with